DMSMS SURVEY RESULTS

1 DECEMBER 1999

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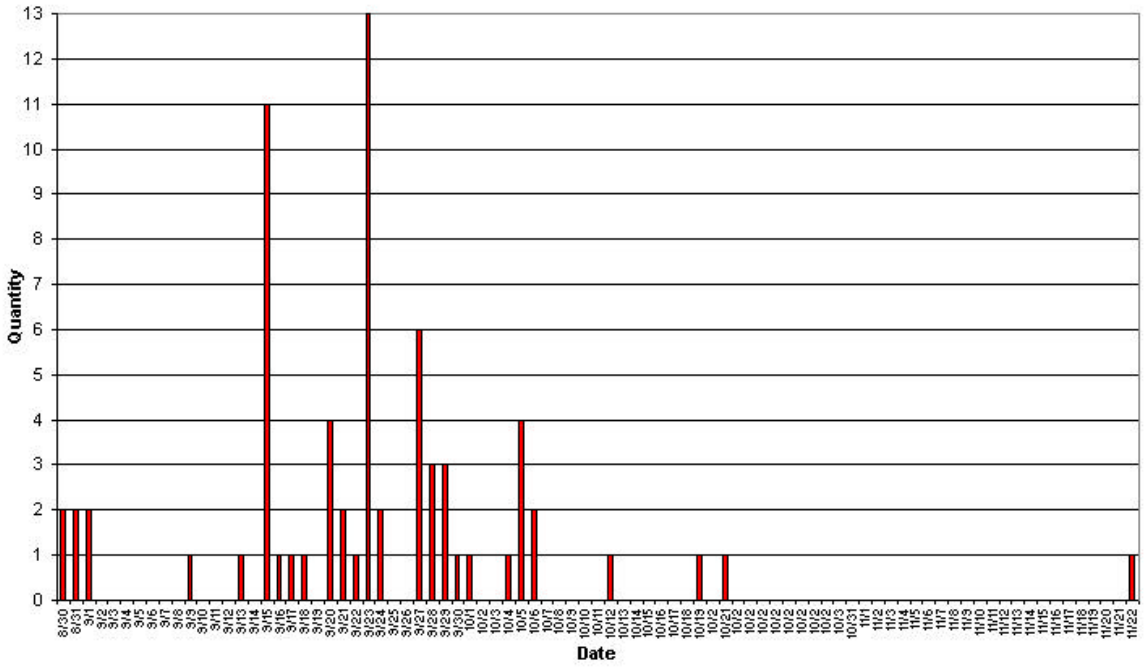
1. SCOPE

This report summarizes the results of a survey that the Defense Microelectronics Activity (DMEA) developed and distributed to Government and Industry members of the DMSMS (Diminishing Manufacturing Sources and Material Shortages) community.

The distribution list was essentially made up of the e-mail addresses of conference attendees of the DMSMS '99 Conference in Monterey, CA, that was held April 20-22, 1999. From this list, attendees with "osd" in their e-mail addresses were eliminated. Recipients of the survey notice were encouraged to forward the survey information to colleagues with similar knowledge and interests.

Responses were collected via a web page at the DMEA web site. Gary Maddux of the University of Alabama, Huntsville distributed the first notice of the survey in the afternoon of Friday, August 27, 1999. Because of a low number of early responses, and the knowledge that the survey's web page inadvertently required a password prior to 9:00 AM on Monday, August 30, 1999, when it was fixed, DMEA sent out another notice to the distribution list requesting survey responses in the late afternoon of September 22, 1999. Gary Maddux then sent out another reminder during the morning of October 7, 1999. The timing of DMEA's receipt of survey responses is shown in Figure 1.

Figure 1: Timing of Survey Responses



2. PRESENTATION

The raw data from the survey responses was collected on November 30, 1999, and organized for presentation in Section 3 of this report. The presentation of the survey responses is in the following format.

Questions 1(a) through 1(m) were actually statements where the respondents were asked to rate the validity of the statement based on their knowledge and experience. The validity ratings available, in order of validity, were: Completely Valid, Very Valid, Somewhat Valid, Not Very Valid, and Not At All Valid. The respondents were then allowed to add comments to better express their feelings toward each statement, if necessary.

Each of the statements is repeated in Section 3 of this report, and a table is presented for each statement totaling the different levels of validity responses. Each statement's table then breaks down these responses by the three levels of demographic differentiation that were gathered from each respondent. The three levels of demographic differentiation requested included Sector (Military/DOD, Non-DOD Government, Contractor, and Other), Service Branch (Air Force, Army, Navy, Marines, DoD-General (OSD), and Other), and Job Focus (Development, Production, Post-Production, All Phases, and Other). No respondent classified themselves as "Marines" under Service Branch; therefore, this category does not appear in the tables in Section 3 of this report.

One area where the data might not be entirely accurate is in the identification of the branch of service with which one is associated. Originally, if a respondent chose not to identify their service or felt that the question was not applicable, the default answer became "Air Force". This error in survey formulation was recognized after finding a preponderance of "Air Force" respondents in preliminary survey results. The survey was corrected on October 13, 1999, but most respondents answered the survey when their answers to this question were possibly ambiguous. The data, as collected, has been retained in the following charts. However, for this reason, one may not want to draw conclusions from "Air Force"-specific results.

After the table detailing the responses for each statement, any comments that were added for that statement are listed along with the specific demographic traits for the respondent and the respondent's validity rating for that statement. Such comments have not been edited for content, spelling, or grammatical errors.

Table 14 shows Questions 1(a) through 1(m) ranked in order of their average validity ranking. This table is presented in an effort to rank, and give visibility to, the issues that are most (or least) important to the DMSMS community as a whole. The "Average" column gives the average ranking of the equally weighted responses to each question based on the following values: Completely Valid = 5, Very Valid = 4, Somewhat Valid = 3, Not Very Valid = 2, and Not At All Valid = 1.

Question 2 required a free form answer. Question 2 is repeated in Section 3 of this report, and the answers collected for Question 2 are listed along with the specific demographic traits for the respondent. Again, such comments have not been edited for content, spelling, or grammatical errors. Table 15 in Section 3 of this report shows the breakdown between the respondents who chose to answer Question 2 versus those who chose not to answer it.

3. RESULTS

1(a) DMS problems would be more manageable if a standard set of acquisition guidelines that address DMS requirements were established and followed by the community.

Table 1: Breakdown of Answers for Statement 1(a)

Statement		Sector				Service Branch					Job Focus				
1(a)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	9	3		5	1	4	2	1		2			4	4	1
Very Valid	23	7	1	15		14	1	2	3	3	4		2	15	2
Somewhat Valid	23	7	1	15		13	1	4	1	4	3	2		17	1
Not Very Valid	7	2		5		5	1			1	2		2	3	
Not At All Valid	4	3		1		2		2			1			3	
No Answer	3	2		1		1	1	1				1		2	
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Not Very Valid
"Because of radiation requirements"

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"Comment areas do not allow large comments!!"

Sector: Military/DOD Service Branch: Air Force
Job Focus: Development Comment Evaluation: Not Very Valid
"Due to radiation requirements, we must consider"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"Imbed "guidelines" in models and tools not text"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"prob not viable under performance spec"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
"This is a huge roadblock"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
"Would have to have wide OEM support"

Sector: Military/DOD Service Branch: Navy
Job Focus: Post-Production Comment Evaluation: Very Valid
"Understood from a new design perspective"

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases Comment Evaluation: Very Valid
"do you mean SOW requirements?"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
“Need uniform guidelines for all programs”

Sector: Military/DOD Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
“Guidelines could impede acquisition reform”

Sector: Other Service Branch: Other
Job Focus: Post-Production Comment Evaluation: Completely Valid
“Seems obvious but an effective system tough.”

1(b) DMS problems would be more manageable if COTS guidelines that address obsolescence risks were established and used.

Table 2: Breakdown of Answers for Statement 1(b)

Statement		Sector				Service Branch					Job Focus				
1(b)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	10	3		7		5	2	1	1	1	2		1	6	1
Very Valid	24	9	2	12	1	11	2	5	1	5	3		3	16	2
Somewhat Valid	17	4		13		11		2	1	3	1	2	1	12	1
Not Very Valid	14	5		9		9	2	1	1	1	2		3	9	
Not At All Valid	2	2				1		1			1			1	
No Answer	2	1		1		2					1	1			
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
“already exist”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
“Better if done by a value added supplier”

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases Comment Evaluation: Very Valid
“COTS guidelines?”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
“Imbed "guidelines" in models and tools not text”

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Not Very Valid
“Support/expansion of the QML system would be bette”

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases Comment Evaluation: Somewhat Valid
“risk mitigation plan is more important”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not Very Valid
“COTS often contributes to, not help Obsol issues”

1(c) DMS problems would be more manageable if design best practices and approaches that mitigate future obsolescence impacts were established and followed by the community.

Table 3: Breakdown of Answers for Statement 1(c)

Statement		Sector				Service Branch					Job Focus				
1(c)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	12	6		6		5	3	2		2	1		3	8	
Very Valid	30	8	1	21		15	1	5	4	5	3	2	1	21	3
Somewhat Valid	16	7		8	1	11	1	3		1	3	1	2	9	1
Not Very Valid	8	2		6		6	1			1	1		2	5	
Not At All Valid															
No Answer	3	1	1	1		2				1	2			1	
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
“Time to market and cost have more impact”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
“performance spec”

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases Comment Evaluation: Very Valid
“up front design”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
“Amen - fix the problems, don’t manage the symptoms”

Sector: Military/DOD Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
“Downside is not getting the best avialable now”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
“DMS is being inserted into the BMPCOE Willoghby Ch”

1(d) DoD would avoid redundant cost if more representatives of government and industry shared program parts information to solve common DMS problems.

Table 4: Breakdown of Answers for Statement 1(d)

Statement		Sector				Service Branch					Job Focus				
1(d)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	20	8	1	10	1	10	3	1	1	5	2	1	4	13	
Very Valid	27	8	1	18		14	2	4	3	4	4	2	1	18	2
Somewhat Valid	11	4		7		8		3			1			8	2
Not Very Valid	7	1		6		5	1			1	2		2	3	
Not At All Valid	2	1		1		1		1					1	1	
No Answer	2	2				1		1			1			1	
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: Post-Production Comment Evaluation: Completely Valid
"Yes, There is a lot of duplicate work."

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Not Very Valid
"I fear another GIDEP"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
"Have DESC review use and stock parts"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"gidep"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not Very Valid
"Commercial component data changes too fast"

Sector: Military/DOD Service Branch: Navy
Job Focus: Post-Production Comment Evaluation: Not At All Valid
"This will never happen in a real sense (CYA)"

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases Comment Evaluation: Very Valid
"part standardization will save more $$$"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
"Smart concept; re: DOD Teaming Group"

1(e) DoD should budget for 2-5 year technology insertion cycles during development/production.

Table 5: Breakdown of Answers for Statement 1(e)

Statement		Sector				Service Branch					Job Focus				
1(e)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	16	7		9		7	2	4	1	2	2	1	3	9	1
Very Valid	21	5	1	15		12	2	2	1	4	3	1		16	1
Somewhat Valid	19	6		13		14	1	1	2	1	4	1	2	11	1
Not Very Valid	6	3		2	1	2	1	2		1			2	4	
Not At All Valid	3	1		2		1		1		1			1	2	
No Answer	4	2	1	1		3				1	1			2	1
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Somewhat Valid
"Only if they can't do better"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
"May be as simple as going to price based systems"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
"lack of dod dollars"

Sector: Military/DOD Service Branch: Army
Job Focus: All Phases Comment Evaluation: Completely Valid
"Each PM should request for this in their POM cycle"

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases Comment Evaluation: Not Very Valid
"Cycles should be budgetted for. Cycle length may"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"COTS goes obsolete in 3 mo. to a year"

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"2 years is really too short"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"needs to be case-by-case, possibly >8 yrs."

Sector: Military/DOD Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
"This could bring DOD in-line with commercial world"

Sector: Military/DOD Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: No Answer
"As opposed to what?"

1(f) DoD could better leverage their $1B microelectronic market if industry would utilize common microelectronics & foundries to mitigate DMS problems.

Table 6: Breakdown of Answers for Statement 1(f)

Statement		Sector				Service Branch					Job Focus				
1(f)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	9	4		5		3	1	1	1	3	1		3	5	
Very Valid	23	7	1	15		12	3	1	3	4	2	1	2	17	1
Somewhat Valid	13	2		11		9		4			2	1		10	
Not Very Valid	14	6		7	1	10	1	1		2	4		2	7	1
Not At All Valid	4	2		2		2	1	1						4	
No Answer	6	3	1	2		3		2		1	1	1	1	1	2
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
"Yes, but this would stimie prpoduct development"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"Use of leading edge technology makes difficult"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
"qml"

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Not Very Valid
"Isn't that what QML is about"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not At All Valid
"good concept but will be impossible to implement"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not Very Valid
"emergency use only!"

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases Comment Evaluation: Not Very Valid
"Do we want to control commercial enterprise."

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases Comment Evaluation: Very Valid
"part number standardization is fundamental"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
"hard to implement with special prog. Requirements"

1(g) A better understanding of the differences between M38510 and 883B could reduce DoD costs and provide additional system solutions.

Table 7: Breakdown of Answers for Statement 1(g)

Statement		Sector				Service Branch					Job Focus				
1(g)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	7	5		2		3	1	1	1	1	1		2	4	
Very Valid	17	4		13		10	1	3	1	2	3	1	1	12	
Somewhat Valid	21	6		14	1	14	1	1	1	4	2	1	2	14	2
Not Very Valid	14	6		8		7	3	2	1	1	1	1	2	10	
Not At All Valid	2	1	1					1		1	1			1	
No Answer	8	2	1	5		5		2		1	2		1	3	2
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Very Valid
"It is lacking"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"If QML wasn't so expensive"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: No Answer
"Don't understand what you are asking????"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: No Answer
"?"

Sector: Military/DOD Service Branch: Navy
Job Focus: Post-Production Comment Evaluation: Completely Valid
"exactly; there are overdesigns out there"

Sector: Other Service Branch: Other
Job Focus: Post-Production Comment Evaluation: Somewhat Valid
"Depends on requirements for ruggedized IC's."

1(h) The use of low-voltage (3V and under) parts in my system is causing concern for my program.

Table 8: Breakdown of Answers for Statement 1(h)

Statement		Sector				Service Branch					Job Focus				
1(h)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	6	2	1	3		1	1			4	1	1	1	3	
Very Valid	11			11		10				1	3	1	1	6	
Somewhat Valid	9	4		5		3	3	1	1	1	1		1	6	1
Not Very Valid	17	6		11		11	1	3		2	2	1		13	1
Not At All Valid	5	2		2	1	2		2		1			1	4	
No Answer	21	10	1	10		12	1	4	3	1	3		4	12	2
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"We have to follow the industry trends"

Sector: Non-DOD Government Service Branch: Other
Job Focus: Development Comment Evaluation: Completely Valid
"especially in terms of new radiation effects"

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Very Valid
"Again, radiation adds additional concerns"

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"We really do not know impacts at this time. "

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: No Answer
"Not yet, but will if item "e" above is instituted"

Sector: Other Service Branch: Other
Job Focus: Post-Production Comment Evaluation: Not Valid At All
"Do not see this as an issue."

1(i) Using COTS mitigates obsolescence.

Table 9: Breakdown of Answers for Statement 1(i)

Statement		Sector				Service Branch					Job Focus				
1(i)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	5	1		4		4		1			1		1	3	
Very Valid	7	1	1	5		4			1	2	2		1	3	1
Somewhat Valid	10	5		5		4	1	3		2		1	1	7	1
Not Very Valid	18	6		12		11	2	2		3	2	1	1	13	1
Not At All Valid	26	10	1	14	1	13	3	4	3	3	4	1	3	17	1
No Answer	3	1		2		3					1		1	1	
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
"Yes and no! Most times no choice"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
"piece-part"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not At All Valid
"Makes it worse"

Sector: Military/DOD Service Branch: Navy
Job Focus: Post-Production Comment Evaluation: Completely Valid
"if ISEAs approve there use; that's the problem"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not At All Valid
"should be open architecture instead"

Sector: Other Service Branch: Other
Job Focus: Post-Production Comment Evaluation: Not Valid At All
"Just the opposite."

1(j) Using COTS exacerbates obsolescence.

Table 10: Breakdown of Answers for Statement 1(j)

Statement		Sector				Service Branch					Job Focus				
1(j)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	15	5	1	9		8	1	2	2	2	5		2	8	
Very Valid	29	6		22	1	19	2	3	1	4	2	2	3	20	2
Somewhat Valid	11	7		4		3	3	3		2		1	1	8	1
Not Very Valid	6	3		3		4		1	1				1	5	
Not At All Valid	4	2		2		3		1			1		1	2	
No Answer	4	1	1	2		2				2	2			1	1
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases Comment Evaluation: Very Valid
"Vendors keep merging and dropping products"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not Very Valid
"only if you by part level"

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"Makes logistical support more difficult"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
"Commercial suppliers are never long term"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
"because of short life cycles"

1(k) With today's parts obsolescence information and databases, it is possible to calculate a budget for maintenance and repair of a black box over a 10-15 year program.

Table 11: Breakdown of Answers for Statement 1(k)

Statement		Sector				Service Branch					Job Focus				
1(k)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	1			1		1								1	
Very Valid	7	3		4		4	2			1	2		1	4	
Somewhat Valid	19	8		11		10	1	3	3	2	1	1		15	2
Not Very Valid	23	8		15		14	2	4	1	2	3	2	3	15	
Not At All Valid	14	4		9	1	8	1	3		2	2		3	9	
No Answer	5	1	2	2		2				3	2		1		2
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not Very Valid
"tool provide gross estimate only"

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Very Valid
"Sure, but how accurate an estimate do you want?"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Very Valid
"plus or minus"

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"Not exact $, but in the ballpark"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not Very Valid
"Maybe 3 years"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"If we know definetly what the follow-on is"

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Very Valid
"Can do it, but verasity is doubtful"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not At All Valid
"Models only good for <8 yrs; fidelity drops a lot"

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"OEMs need more data like field failure data"

Sector: Military/DOD Service Branch: Navy
Job Focus: Post-Production Comment Evaluation: Not Very Valid
"That's too long, I'd say 5-8 yrs."

Sector: Other Service Branch: Other
Job Focus: Post-Production Comment Evaluation: Not Valid At All
"No experience in this area but seems impossible."

1(l) The government should share in the risk of contractor-acquired life-of-type buys during production.

Table 12: Breakdown of Answers for Statement 1(l)

Statement		Sector				Service Branch					Job Focus				
1(l)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	10	2		8		8	1			1	1	2		7	
Very Valid	17	5		12		10	1	1	2	3	4		4	9	
Somewhat Valid	17	7	1	8	1	7	2	4	1	3	3	1	1	12	
Not Very Valid	7	2		5		5		1		1				6	1
Not At All Valid	8	3		5		4	2	1	1					8	
No Answer	10	5	1	4		5		3		2	2		3	2	3

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Very Valid
"Will they not also share in the benefits?"

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: Very Valid
"This would have helped many times"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
"Have DESC review use and stock parts"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
"Need termination protection on bridge buys"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not At All Valid
"ffp contract with incentives"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not At All Valid
"Govt allow contractor to manage via guideline doc"

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases Comment Evaluation: Not At All Valid
"CLS eliminates Govt risk"

Sector: Other Service Branch: Other
Job Focus: Post-Production Comment Evaluation: Somewhat Valid
"Under some circumstances but is not always practice"

Sector: Military/DoD Service Branch: Navy
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"not if we contract for full life cycle support"

1(m) DMS cost avoidance metrics are important to my management.

Table 13: Breakdown of Answers for Statement 1(m)

Statement		Sector				Service Branch					Job Focus				
1(m)	Total	Mil./DoD	Non-DoD Govt.	Contr.	Other	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Completely Valid	10	3		7		4	1	1		4	2		2	6	
Very Valid	28	8	1	19		16	2	6	2	2	3	2	3	19	1
Somewhat Valid	15	9		6		7	3	3	1	1		1	1	12	1
Not Very Valid	5			5		4				1	1		1	3	
Not At All Valid	3	2		1		2			1		1			2	
No Answer	8	2	1	4	1	6				2	3		1	2	2
Totals	69	24	2	42	1	39	6	10	4	10	10	3	8	44	4

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: Development Comment Evaluation: No Answer
"N/A"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"if it helps pm"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Not Very Valid
"Could be if we took the time to generate"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Somewhat Valid
"but seem to be increasing in importance"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: Completely Valid
“as well as tangible return on investment numbers”

Sector: Military/DOD Service Branch: Air Force
Job Focus: All Phases Comment Evaluation: No Answer
“Not sure!”

Sector: Military/DOD Service Branch: Navy
Job Focus: Post-Production Comment Evaluation: Completely Valid
“We get kudos for this info”

Table 14: Statements 1(a) Through 1(m) Ranked by Average Validity Responses

	Completely Valid	Very Valid	Somewhat Valid	Not Very Valid	Not At All Valid	No Answer	Average
1(d)	20	27	11	7	2	2	4.08
1(c)	12	30	16	8		3	3.94
1(j)	15	29	11	6	4	4	3.93
1(e)	16	21	19	6	3	4	3.87
1(m)	10	28	15	5	3	8	3.86
1(a)	9	23	23	7	4	3	3.61
1(b)	10	24	17	14	2	2	3.60
1(f)	9	23	13	14	4	6	3.53
1(l)	10	17	17	7	8	10	3.47
1(g)	7	17	21	14	2	8	3.44
1(h)	6	11	9	17	5	21	3.18
1(k)	1	7	19	23	14	5	2.50
1(i)	5	7	10	18	26	3	2.34

2 What specific changes in DoD policy or guidelines do you believe can help you better manage your obsolescence problems?

Comments

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
“While DMSMS should eventually become another element of the acquisition/systems engineering process, considered from the early design phases along with reliability, producibility, etc, it is still largely handled by reactive methods (life-of-type buys, etc.). For at least the foreseeable future, provision needs to be made in the budget/POM process to enable PMs to fund, beginning in R&D, activities needed to develop the necessary processes, tools, design guidelines, cost prediction techniques, contract language, etc, that will enable them to proactively address the problem in concert with their contractors.”

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases
“To have contracts written that require the contracted company supplying the final production assemblies be more responsible for costs due to COTS obsolesence issues. As every 1 to 2 years, at least 5% of the parts used within a COTs product go obsolete, the contract should state that upgrades/regression testing be a responsibility of the production company so as to lower the chances of having hardware and software incompatibilities. As software development is the "long pole" of a systems development, more often than desired the hardware originally purchased to

support the planned software implementation becomes obsolete before the software is deployed. The other major issue I see is that as far as a large company is concerned, i.e.HP, we are only a small player in their overall sales an thus do NOT get the services we require. This includes Technical documentation to assist the navy in developing its maintenance support products so as to allow the Fleet sailor identify the "failed" component much faster and not have him/her replacing the wrong parts first because no information was available to narrow the focus."

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases
"The highest managers of DoD press the adoptation of COTS to reap the benefits & lower program costs. These same managers should accept the inherent obsolesence problems with that direction and support increses to program budgets as required to deal with those problems."

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
"The government has jumped out of a perfectly good airplane, and now with the shoot deployed, they are looking back to see if that was a good step. The government has to let gravity work by not imposinge standeards that are in conflict with the NDI, COTS commercial best practices concepts. If these concept are insufficient then let the industry know (say with a NAVY initiative) and the industry will respond."

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
"Set up an on-going DMS program through the Logisitcs organization and make it an initiative in any military program. This should be in the initial Statement of Work for any new contracts. Contacts can be placed in the SOW and initiatives could be standardized in order to ensure the industry and Government work together and not compete against one another."

Sector: Contractor Service Branch: Air Force
Job Focus: Development
"See upcoming Boeing study for ATSP2 CET #1"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
"Have DESC review use and stock parts; and if the Government would be willing to share the burden of parts replacement and redesign."

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
"Providing real environmental specifications for operating temperatures, do not just specify the Mil-temp range from a boiler-plate for all equipment."

Sector: Contractor Service Branch: Air Force
Job Focus: Post-Production
"Provide a more accurate/realistic system environmental requirements for each new DOD hardware contract rather than specify full mil temperature range. This would allow for a more cost effective use of COTS microcircuits by contractors."

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
"policy will not stop technology migration that is why good dmsers have a job"

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
"Need to leverage coalteral technology improvements available from insertion to address DMS. Move towards price based acqusition will provide incentive to industry to make investments in

technolgy upgardes to address DMS. Move away from goverenment ran depots and toward supplier "power-by-the-hour" warranties”

Sector: Contractor Service Branch: Air Force
Job Focus: Production
“Multi year budget appropriations.”

Sector: Military/DOD Service Branch: Navy
Job Focus: All Phases
“Most obsolescence issues cause life cycle support issues and are funded out of OM&N dollars. To design out the obsolescence issues requires new design type $ that are not available to resolve life cycle support issues.“

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
“Most aquisitions are driven by the initial cost not the life cycle cost. I would like to see a better appreciation of how spending a little more in up front costs (NRE) will greatly reduce the overall costs through the life of a system, in particular by focusing on increasing the use of common design standards within the DOD. The shift to COTS has reduced the NRE but obsolescence often forces redesign after the systems are fielded. The purpose is better served by incorporation of defacto standards established across the DOD independant of specific programs of which MIL-STD-1553 is an excellent example. The use of a common power mangement standard across the DOD which is more suited to microelectronics rather than using MIL-STD-704 which forces the use of elaborate power supplies in each LRU. This should be considered as a long term method of reducing the life cycle costs of fielded systems and would start with a review of power generation and usage of fielded systems within the DOD.”

Sector: Contractor Service Branch: Other
Job Focus: Development
“More directive and guidelines to manage obsolescence.”

Sector: Contractor Service Branch: Air Force
Job Focus: Development
“In space programs, parts managers often impose "old" rules which make qualifying new parts too expensive. Maybe change of policy isn’t needed as much as policy enforcement down to lower levels of program office and even to subcontractors.”

Sector: Contractor Service Branch: Air Force
Job Focus: Post-Production
“In many ways the DoD needs to manage/model their programs like the commercial sector. Two level maintenance and longer contract periods will better enable the Gov. to mitigate DMS.”

Sector: Contractor Service Branch: Air Force
Job Focus: Development
“Funding cycle For the overall program there is enough money, the question is how to apply it to the right period to minimise the DMSMS problems.”

Sector: Contractor Service Branch: Air Force
Job Focus: Development
“Forget the policy & guideline documents. What we need is a culture change which supports a design & development environment which is prepared to deal with continuous technology refreshment. It starts with the customer expecting and supporting it, continues through the B&P process and is implemented in the performance phase of each contract.”

Sector: Contractor Service Branch: Air Force
Job Focus: Development
“For DoD to recognize the facts that Military qualify parts are disappearing and COTS is the only remaining option. Therefore, DoD with cooperation of industry organization such as STACK and IC manufacturers to work on developing standardized microcircuit qualification process. Even though the qualification process will not resolve the parts temperature performance issues it will make it a no brainier to select a qualified part/manufacturer. The next approach will be to coordinate combined buys of extended temperature parts. Collectively as a block, military/avionics/automotive and industrial consumers could convince the IC manufacturers to make a single yearly run of parts with extended temperature range (-40c to +85C or -55C to 125C). This will be a win-win approach for IC manufacturers as well as all users.”

Sector: Military/DOD Service Branch: Army
Job Focus: All Phases
“DOD should establish a common policy that forces each service PM to follow. If everyone follows the same policy, that would lead to amny common solutions to our DMSMS problems.”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
“DOD needs to recognize that testing introduces failures. The IC industry is generally at a point where ICs are at their highest quality as they emerge from the production line. Every test performed on those devices thereafter further reduces their quality. Testing never improves quality.”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
“Define in clear wordsdefine what "use commercial parts means" (Perry Initiative) and flow it down to all contractors. It seems that peolple take the Perry Initiative as an excuse to use commercial parts. Kaminski’s letter tried to address this butit was late and the damage was done. Commercial parts are short lived, 2 year cycle therefore do not fare well in a military system life (20+ years). Also the continued use of commercial parts will cause the rest of the military part industry to fold do to lack of business or a better utilization of manufacturing assets then there will be a problem that I do not believe can be solved. Also is it time that the military accept the commercial way of addressing DMS. Redesign rather than make EOL buys. Check your commercial electronics, they do it. The DoD should include DMS management in the work statements, this should be a part of every contract.”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
“Changes in procurement practices are necessary to allow programs and contractors to have the long-term focus necessary to make the smartest DMS decisions. Yearly procurement is not the way! Need to maximize the level of information and data sharing between Users to allow most efficient use of DMS funding. Consistent approach on where DMS management/tracking should be performed. Is this the SPO’s responsibility? Prime Contractor? Or the box builder? Seems a waste to have all three of these doing the same job!”

Sector: Military/DOD Service Branch: DOD-General (OSD)
Job Focus: All Phases
“Change for DMS ICs the 2-year limit for DMS buys. Allow "fencing" of stock.”

Sector: Non-DOD Government Service Branch: Other
Job Focus: Development
“allowing stock-piling procurements of known or perceived DMS components”

Sector: Military/DOD Service Branch: Army
Job Focus: All Phases
“Acquisition reform needs to recognize the need to have contractual clauses addressing DMSMS. Also, budgets need to be established as a norm for obsolescence management and modernization upgrades. Programs should be required to have established DMSMS programs and plans. This needs to be a milestone requirement.”

Sector: Contractor Service Branch: Other
Job Focus: All Phases
“Ability to make true Multi-year buys. DMS susceptibility should be a specific criteria evaluated in Design Reviews. Better communciation of available inventory at DLA. Improve ability to use aftermarket product without excessive paperwork.”

Sector: Military/DOD Service Branch: Navy
Job Focus: Post-Production
“Budget the logisitics and DMSMS agencies in non-competing commands. Understanding more of the whole picture allows for a quicker assessment of the proper plan of action, reduced LOT buys, less fiscal dollars being spread. Also, get the construction and In-Service phase of logistics PMs to work handoffs of problem issues by cost sharing 50/50. Stop the finger pointing, we’re all on the same side! Let’s support our DoD responsibly.”

Sector: Contractor Service Branch: DOD-General (OSD)
Job Focus: All Phases
“Contract for DMSMS management plan and regular reporting of problems and recommended solutions. Eliminate Configuration control at piece part level. Allow more modernization through spares(color of money).”

Sector: Contractor Service Branch: Air Force
Job Focus: All Phases
“DMSMS must be considered from "womb to tomb" (design, development, production, supportability). Obsol Mgmt program guidelines are required, with room for Gov’t, Contracator or Subcontractor versatility. DMSMS Program must be approved by "Customer" Horizontal integration, communication and teaming are efficient keys to success. We must also strive to address "Material Shortages" as well.”

Sector: Military/DOD Service Branch: Air Force
Job Focus: All Phases
“Funding for system (black box) managers/technical experts to acquire training, tools, analysis, testing, contract support and parts to combat obsolescence. “

Sector: Military/DOD Service Branch: Air Force
Job Focus: All Phases
“I believ that this program should be look at just like Common Eingines in the Airforce. Commonality is a way to minimize duplication of effort, cost, and to some extent time. This should be worked at the DOD level with a close parnership with the Army/Airforce/Navy/NASA and private industry. However, I would wait on the private sector until we document the issue we need to solve first!”

Sector: Contractor Service Branch: Other
Job Focus: All Phases
“Industry/manufacturers are running with COTS. Cotracts are calling for Full Mil. DoD needs to call out performance requirements, let the maker build to any specification as long as it meets the performance requirements (black box with footprint, I/O, and Lamda specified).”

Sector: Non-DoD Government Service Branch: Other
Job Focus: Other
“Buying activities should be aware that when faced with a DMS/MS situation, help is available under the Defense Priorities and Allocations System (15 CFR 700 - see www.doc-bxa.bmpcoe.org/dpas.html) (DPAS), administered by the Dept. of Commerce. This authority can be used to "buy time" with the DMS/MS supplier for the buying activity or private sector customer (prime contractor or lower-tier) to work out an alternate solution.”

Table 15: Breakdown of Respondents Who Did and Did Not Answer Question 2

Question		Sector			Service Branch					Job Focus				
2	Total	Mil./DoD	Non-DoD Govt.	Contr.	AF	Army	Navy	OSD	Other	Dev.	Prod.	Post-Prod.	All Phases	Other
Answerers	34	9	1	24	22	2	4	2	4	7	1	3	23	0
No Answer	31	14		17	16	4	5	2	4	3	2	4	19	3
	65	23	1	41	38	6	9	4	8	10	3	7	42	3